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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/526,381

10/27/2005

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EXAMINER

BERNSHTEYN, MICHAEL

ART UNIT

PAPER NUMBER

1796

MAIL DATE

DELIVERY MODE

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/526,381	Applicant(s) SASAKI ET AL.	
	Examiner MICHAEL M. BERNSHTEYN	Art Unit 1796	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 22-47 is/are pending in the application.
- 4a) Of the above claim(s) 22-41, 45 and 46 is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 42-44 and 47 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☒ Claim(s) 22-47 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03 March 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____. |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>03/03/05, 07/17/06</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Election/Restrictions

1. Restriction is required under 35 U.S.C. 121 and 372.

This application contains the following inventions or groups of inventions, which are not so linked as to form a single general inventive concept under PCT Rule 13.1.

In accordance with 37 CFR 1.499, applicant is required, in reply to this action, to elect a single invention to which the claims must be restricted.

Group I, claim(s) 22-34, drawn to a polymerizable composition comprising a compound (A) denoted by Formula (1) and a compound (B) denoted by Formula (2);

Group II, claim(s) 35-37, 40 and 45, drawn to a process for preparing an optical member;

Group III, claim(s) 38, 39, 41 and 46, drawn to a process for preparing an optical member;

Group IV, claim(s) 42-44 and 47, drawn to a optical member comprising a region having a distributed refractive index, which is essentially formed of a polymer having a molecular weight from 10,000 to 1,000,000.

The inventions listed as Groups I-IV do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons: the special technical feature of Group I claims is the claimed polymerizable composition comprising a compound (A) denoted by Formula (1) and a compound (B) denoted by Formula (2), and this feature is not present in Groups II-IV. The special technical feature of Groups II and III claims is the process for preparing an optical member, and this feature is not present in Groups I and IV. The special technical feature of Group IV claims is the optical member comprising a region having a distributed refractive index, which is essentially formed of a polymer having a molecular weight from 10,000 to 1,000,000, and this feature is not present in Groups I-III. Therefore unity of invention is lacking.

2. A telephone call was made to Mr. Brett S. Sylvester on July 2, 2008, to request an oral election to the above restriction requirement, and Applicant's election without

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traverse of Group IV, claims 42-44 and 47 in the oral reply made by phone on July 2, 2008 is acknowledged.

3. Claims 22-41, 45 and 46 have been withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected inventions, there being no allowable generic or linking claim. Election was made **without** traverse in the oral reply made by phone on July 2, 2008.

4. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

5. Claims 42-44 and 47 are active.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

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1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

6. Claims 42-44 and 47 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamamoto et al. (JP 63-180907) in view of Kaino et al. (U. S. Patent 4,381,269).

With regard to the limitations of claims 42-44 and 47, Yamamoto discloses that: an **optical fiber** is constituted of a plastic material comprising a raw material having good transparency as the core component and ester moiety consisting primarily of polymer constituted of methacrylic ester having ≥ 6 C cycloaliphatic hydrocarbon group and having by ≥ 0.01 smaller refractive index than the refractive index of the material or the core component. Particularly, when a mixture of methacrylic esters comprising **fluorinated alkyl methacrylate**, methyl methacrylate, and **cycloaliphatic hydrocarbon** group in the ester moiety in an appropriate proportion, particularly in the proportion for constituting azeotropic polymer, are copolymerized in accordance with the

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proportion of the constituting monomers to prepare the polymer and the polymer is used for the shell material, superior transparency of optical fiber is maintained and the flexibility, workability, and the heat resistance are improved.

It allows to improve the flexibility, workability, and heat resistance, etc. of optical fiber by constituting a shell component of the optical fiber of a polymer consisting primarily of a specified methacrylic ester in the ester moiety and having a specified refractive index (abstract).

Furthermore, Yamamoto discloses that the optical fibers with good transparence and heat resistance are prepared from C_{>6} alicyclic hydrocarbon methacrylate resin exteriors having refractive index (R_i) >0.01 lower than R_i of the interior resins. Thus, exterior can be considered as the claimed optical member as per claim 42, and the optical fiber, which contains core and shell parts can be considered as the claimed optical member as per claim 43

With regard to the limitations of claim 42, Yamamoto does not disclose that the optical member has a molecular weight from 10,000 to 1,000,000.

Kaino discloses that it is preferable that molecular weight of the copolymer is within a range of 20,000-100,000 in weight-average molecular weight, which is within the claimed range (col. 11, lines 12-15).

Both references are analogous art because they are from the same field of endeavor concerning new optical members.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to adjust weight-average molecular weight in the

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claimed range as taught by Kaino in Yamamoto's core component for optical members because if the molecular weight is 100,000 or more, a low viscosity sufficient for being capable of coating cannot be obtained in the case where the copolymer is applied on the core fiber by means of the coating method, whilst if the molecular weight is 20,000 or less, a suitable strength for the cladding material cannot be obtained (US'269, col. 16, lines 18-24), and thus to arrive at the subject matter of instant claim 42 and dependent claims 43, 44 and 47.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MICHAEL M. BERNSHTEYN whose telephone number is (571)272-2411. The examiner can normally be reached on M-Th 8-6:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Randy Gulakowski can be reached on 571-272-1302. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Michael M. Bernshteyn/
Examiner, Art Unit 1796

/M. M. B./
Examiner, Art Unit 1796

/Randy Gulakowski/
Supervisory Patent Examiner, Art Unit 1796